

## Nature's Nourishment The Acorn

### Materials

[How Many?](#) journal page  
(Figure I)

[Nature's Recipe](#) journal page  
(Figure J)

Acorns (or other nuts/seed pods that can represent acorns) - at least 400 acorns (approximately 2 lbs) per group of 4-5 students.

Kitchen scale

Paper bowls (large enough to hold 300 - 400 acorns), one per group of 4-5 students

[Acorn Bread](#) recipe (Figure K) and ingredients (optional)

Journals

### Oh, California

Chapter 2, Lesson 3

### Pre-Planning

Practice reading the acorn story to become familiar with it.

Gather acorns\* (at least 100 per student) or purchase from [Pacific Western Traders](#), 305 Wool Street, P.O. Box 95, Folsom, CA 95630 916-985-3851 (FAX 916-985-2635)

Wed - Sat, 10am-5pm or

Sun, 11am-4pm. \*Other types of nuts, e.g., filberts, can be used, or even seed pods gathered from local trees. Some Asian markets carry acorn flour.

Prepare copies of the [How Many?](#) and [Nature's Recipe](#) journal page for each student.

Plan to break up the class into groups of four to five students.

Gather ingredients and plan to make acorn bread (optional).

Oak trees grow throughout California, and the fruit, called an *acorn*, provided one of the most important foods for all Native Americans in California including the Chumash and Gabrielino/Tongva. Both the Chumash and the Gabrielino/Tongva chose not to practice agriculture. Everything they needed was provided by the plants and animals around them. The Coast Live Oak (*Quercus agrifolia*) and the Valley Oak (*Quercus lobata*) provided an abundance of acorns.

This activity begins with a Chumash story of how the oak tree was given to the Chumash people. It then has students making predictions and gathering acorns to get an idea of the amount of acorns needed to feed a family and how important this food was to the Chumash and Gabrielino/Tongva. After preparing acorn bread (*optional*) students are invited to write their own recipe using different plants and animals.

### Anticipation

◆ Reintroduce to the students the importance of the acorn to the Chumash and Gabrielino/Tongva. You may want to invite the students who had the “oak tree” or “mortar & pestle” pictures to tell the class what they remember.

◆ Read to the students the following Chumash oak tree story by Charlie Cooke, Hereditary Chief of the Chumash:

*At the time of the Rainbow Bridge, when the Chumash lived on the coastal islands, Hutash-Mother Earth, created a long, high rainbow. She asked the people if they would like to leave the island, cross the rainbow and go to the mainland.*

*When they arrived, the foods were different and the people weren't sure what to eat. So Mother Earth and Father Sky created the oak tree.*

*They told the people what to do with the oak tree. How to take the acorn—the fruit of the oak— and prepare it to eat. The acorn became the staple food of all the Chumash people.*

*That is why, as long as there is an oak tree, there still will be Chumash.*

◆ Discuss the story.

◆ Ask the students: *What does the moral of the story mean: As long as there is an oak tree, there still will be Chumash?*

## Procedure

### Part I

1. Divide the class into groups of four to five students.
2. Explain that each group represents one Chumash (or Gabrielino/ Tongva) family.
3. Explain that the families would gather acorns in the fall of each year. They would gather enough acorns to prepare, store and use for the whole year.
4. Pass out the *How Many?* journal page.
5. Ask the students to write a prediction for the following questions (They may share their ideas with the rest of their group):
  - a. *How many pounds of acorns do you think one family needed to gather to fulfill their needs for one year?*
  - b. *How many pounds of acorns do you think one average-sized tree could provide in a season?*
6. Pass out a paper bowl to each group of students.
7. Scatter acorns (or other nuts/pods) all around the classroom.
8. Instruct the groups to carefully “gather” as many of the acorns as they can, carefully placing them in the paper bowl.
9. Ask the groups to predict how many pounds of acorns they gathered. Write their prediction on their worksheet.
10. Go around to each group and weigh their bowl of acorns. Have them write the results on their worksheets. (Each bowl should weigh approximately 2 lbs.)
11. Once all the groups have weighed their bowl, give them the answers to the first two questions:
  - a. *How many pounds of acorns do you think one family needed to gather to fulfill their needs for one year? Answer: An average of 500 pounds a year.*
  - b. *How many pounds of acorns do you think one average-sized tree could provide in a season? Answer: An average tree could produce 140 pounds a year.*
12. Have the groups write the answers on their worksheets and continue to figure out the rest of the questions as a group. If needed, explain how to find the difference.
13. After all the groups are finished, discuss the results. Explain that the Chumash and Gabrielino/Tongva needed to gather much more than all of the groups' acorns combined. Figure out how many times what they gathered would equal 500 pounds.



## *Pre - Visit Activities* Nature's Nourishment

### Part II

1. Describe the steps the Chumash and Gabrielino/Tongva used to prepare acorns:
  - a. Remove cap and outer shell of the acorns.
  - b. Dry out acorn kernels in storage granaries.
  - c. Pound acorn kernels with stone mortar and pestle into a meal.
  - d. In basket or shallow pit lined with leaves, pour water over acorn meal repeatedly until the bitter tannic acid washes/leaches out.
  - e. Mix the acorn meal with water in a watertight basket.
  - f. Cook acorn meal by stirring hot stones in the mixture.
  - g. Remove the stones.
  - h. Eat the thick acorn soup by scooping it out with mussel shell spoons.
2. On their worksheets, have the students number the steps to prepare the acorn.
3. *Optional:* Prepare acorn bread using the recipe on *Figure K*.



### Part III

1. Explain to the students that everything the Chumash and Gabrielino/Tongva ate came directly from the land. This included many types of seeds, fruits and berries such as, elderberry, blackberries, prickly pear, pine nuts, chia seeds, grass seeds and wildflower seeds. They gathered bulbs and roots of plants, mushrooms, tree fungi, yucca and seaweed. They hunted various animals for meat, including sea mammals, fish, quail, rabbit and deer. They did not plant crops.
2. Pass out the *Nature's Recipe* journal pages.
3. Have the students complete the recipe activity.
4. Have students share their made-up recipes with the class.

## Figure 1

*How Many?*

	Prediction	Actual	Difference
How many pounds of acorns did one family need to gather to fulfill their needs for one year?			
How many pounds of acorns did one average-sized tree provide in a season?			
How many pounds of acorns did your group collect?			

How many more pounds would your group need to gather? \_\_\_\_\_

How many trees would your group need to fulfill your family's acorn needs for one year? \_\_\_\_\_

Using the "families" in your classroom, how many trees in a oak grove would be needed? \_\_\_\_\_

*How To Prepare Acorns*

Put the following in numerical order:

- \_\_\_\_\_ Eat the thick acorn soup by scooping it out with mussel shell spoons.
- \_\_\_\_\_ Cook acorn meal by stirring hot stones in the mixture.
- \_\_\_\_\_ Dry out acorn kernels in storage granaries.
- \_\_\_\_\_ Pour water over acorn meal repeatedly, until the bitter tannic acid washes out.
- \_\_\_\_\_ Remove cap and outer shell of the acorns.
- \_\_\_\_\_ Mix the acorn meal with water in a watertight basket.
- \_\_\_\_\_ Remove the stones.
- \_\_\_\_\_ Pound acorn kernels with stone mortar and pestle into a meal.

## Nature's Recipe

### Figure J

**Words to Use:**

- Mix
- Pour
- Blend
- Grind
- Bake
- Cook
- Add

**Ingredient Choices:**

- Acorn
- Chia seeds
- Pine nuts
- Blackberries
- Black Walnuts
- Toyon berries
- Yucca flower
- Cattail roots
- Seaweed
- Wild onions
- Deer meat
- Rabbit meat
- Abalone
- Crab
- Fish
- Bird eggs
- Quail meat
- Water

You are a Native American child who was born and raised here. You are very familiar with this land. It is a part of your life. Your people are so knowledgeable about the land that they have developed a method to get rid of the bitter tannic acid from the acorn—one of your most important foods.

Everything you eat is gathered or hunted from the land. Below is a list of ingredients found near your village. Come up with your own recipe using whatever ingredients you choose. Name your new recipe!

### MY RECIPE

**Recipe Name** \_\_\_\_\_

**Ingredients** \_\_\_\_\_

**Directions** \_\_\_\_\_

## *Acorn Bread* *the modern way*

### *Figure K*

1. Shell dry acorns (it takes 200 cracked acorns to make 1 cup of acorn meal)
2. Use a blender to grind acorns into fine flour.
3. Put acorn flour into a muslin-lined colander (cheesecloth is too porous).
4. Place into a sink and run warm water through the flour until the bitterness is gone. Stirring gently will speed up the process.
5. Shape the meal into pancake-like patties (about 1 1/2" thick) while flour is still moist.
6. Fry without oil on a coated pan.

- ◆ Acorn flour may be dried and stored in a freezer.
- ◆ This flour may be used in place of regular flour in cookie recipes.

